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In re Application of
Qui et al.
Application Serial No. 09/597,840 : ON PETITION
Filed: June 20, 2000
Attorney Docket No. 19603-3340 (CRF D-2018B)

This is a revised decision by the Group Director of Technology Center 1600 on the renewed petition under 37 C.F.R. 1.144 for review of the restriction requirement and the previous decision of the Group Director of November 22, 2002, which refused to withdraw the final restriction requirement of March 27, 2002.

The renewed petition is **granted in part to the extent indicated.**

The instant application is a divisional of Application Serial No. 09/013,587, filed January 26, 1998, now U.S. Patent 6,277,814, which claims benefit of U.S. Provisional Application Serial No. 60/036,048, filed January 27, 1997. The instant application was filed on June 20, 2000 and was accompanied by a preliminary amendment canceling claims 1-37. Thus, at the time that the original restriction requirement was presented to applicant (September 7, 2001), claims 38-51 were pending.

As originally presented, claim 38 is drawn to a method of enhancing plant growth comprising providing transgenic plants or seeds that have been transformed with DNA that encodes a hypersensitive response elicitor (HRE) and growing said plant or seed under conditions effective to enhance plant growth. Dependent claims 39-45 specify the pathogenic organism from which the HRE is derived. In particular, claim 39 specifies that the hypersensitive response elicitor polypeptide or protein corresponds to that derived from a pathogen selected from the group consisting of *Erwinia*, *Pseudomonas, Xanthomonas, Phytophthora,* and mixtures thereof. Claims 40-45 specify individual pathogenic species or genera. It is noted that while claim 39 specifies "or mixtures thereof", claim 38 (from which claim 39 depends) specifies that the plants are transformed with "a" DNA. Therefore, a plain reading of claim 39

indicates that only a single DNA is introduced into the plants that are to be grown. Claims 47 and 48 specify groups of plants that are to be grown and claims 49 and 50 limit the "plants or seeds" of claim 38 to the use of *either* a plant *or* a seed. Claim 51 specifies an additional step in the method of claim 38 where in addition to the transgenic introduction of the DNA encoding the HRE, the HRE polypeptide or protein is applied to the plant.

In the restriction requirement mailed September 9, 2001, claims 38-51 were subject to an eight-way restriction requirement. In Groups I-VI, applicant was required to elect a source from which the HRE was derived. Group VII (misnumbered as Group VI, second occurrence) specified generic claims (claims 38, 39, and 46-50) that were not limited to derivation of the HRE from any particular pathogenic bacteria genus or species. Group VIII (misnumbered as Group VII) specified that the inclusion of the additional step of applying the HRE polypeptide or protein to the plant represented a patentably distinct invention.

Applicant responded to the restriction requirement on January 1, 2001 with the election of the invention of Group II, claims 38, 39, 41, and 46-51, with traverse. (Note that as originally presented, Group II did not include claim 51). Group II is drawn to a method of enhancing growth in plants by transformation with a nucleic that encodes an HRE derived form *Erwinia amylovora*. In their traversal, applicant argued, in part, that the originally presented restriction requirement did not follow linking claim practice as specified in MPEP §814 and further argued that species election practice should have been followed. In response, the Office Action mailed March 27, 2002 indicated that claims 38, 39 and 46-52 "were effectively treated as linking claims in that they were associated with multiple Groups" (see Office Action at page 2, second paragraph). This restriction requirement was made final.

In response to the final restriction requirement, a petition under 37 C.F.R. §1.144 was filed on October 1, 2002 and was accompanied by a declaration under 37 C.F.R. §1.132 by Dr. Zhong-Min Wei. In this declaration, Dr. Wei presented evidence and argument supporting that the claimed invention was operable using DNA encoding an HRE prepared from *Erwinia amylovora* and using topical application of HRE proteins prepared from *Pseudomonas syringae* and *Xanthomonas campestris*. While demonstrating the operability of several embodiments of the claimed inventions, applicant did not argue or provide evidence that the different embodiments of the claimed inventions were obvious over on another. Petitioner also argued therein that since the HREs of the instant application are widely recognized as a class or genus of related compounds, a restriction based upon the HRE elements is inappropriate. However, while some HREs were apparently known in the art at the time the application was filed, there is no indication that it was recognized that these different HREs would have been expected to have been functionally equivalent in the context of the instantly claimed methods. Petitioner also argued that one skilled in the art would have expected to have been able to isolate HREs from different species based upon cross-species hybridization methods. However, while this point is acknowledged, petitioner falls short of arguing that one skilled in the art would have expected different genes to have been functionally equivalent within the context of that which is claimed or that one would have been motivated to have substituted a HRE from one species for that of another with the expectation of achieving the same result (i.e. that the HREs from different species would have been obvious over one another). Finally, petitioner urges that in setting forth the original restriction requirement, the USPTO has failed to establish a burden

upon the Office since when appropriately classified the separate inventions would be similarly classified. However, it is noted that even if different inventions are similarly classified, a complete search and examination in non-patent literature must include specific consideration of source materials and such consideration is maintained as representing a significant examination burden.

In the renewed petition under 37 C.F.R. §1.144 filed January 27, 2003, petitioner reiterates the arguments presented in the October 1, 2002 petition and presents a Supplemental declaration by Dr. Zhong-Min Wei under 37 C.F.R. §1.132. In this supplemental declaration petitioner provides more evidence relating to the functionality of that which is claimed but again falls short of indicating that the different claimed embodiments are not patentably distinct. For reasons amply explained by the examiner in the Office Action of March 27, 2002 and discussed above, it is maintained that the use of the HREs from different species represent patentably distinct inventions.

Even though it is maintained that the fundamental basis of restriction as set forth by the examiner is sound, the restriction requirement as set forth on September 7, 2001 and made final on March 27, 2002, fails to properly treat the linking claims as presented by claims 38 and 46-51. In the March 27, 2002 Office Action, it is noted that "(c)laims 38-39 and 46-50 were effectively treated as linking claims in that they were associated with multiple groups" (see Office Action at page 2, second full paragraph, lines 1 and 2). The Office Action continues on page 3, lines 2 and 3, by stating that "(c)laims 38-39, 41 and 46-50 are examined to the extent they read on the transformation with a nucleic acid encoding a hypersensitive response elicitor from *Erwinia amylovora*." In this regard, it is noted that had proper linking claim practice been applied applicant would have been required to elected a single invention relating to the use of one of the species of HRE even while obtaining an examination of the generic linking claim to the extent necessary to determine patentability or lack thereof.

MPEP §809 states that where, upon examination of an application containing claims to distinct inventions, linking claims are found, restriction can nevertheless be required. MPEP §809.03 states that there are a number of situations which arise in which an application has claims to two or more properly divisible inventions, so that a requirement to restrict the application to one would be proper, but presented in the same case are one or more claims (generally called "linking" claims) inseparable therefrom and thus linking together the inventions otherwise divisible. The most common types of linking claims which, if allowed, act to prevent restriction between inventions that can otherwise be shown to be divisible include genus claims linking species claims. This is the situation in the instant application. Claim 38 represents a genus claim and claims 40-45 recite particular species that are encompassed by the genus recited in claim 38 and the subgenera recited in claim 39. It is noted that claim 39 recites a Markush group that includes the species recited in claims 40-45, but it is nonetheless restrictable since it is possible to enumerate the separate embodiments in such a manner that, upon filing an appropriate number of divisional applications, applicant would be able to obtain an examination of the full scope of that which is recited. It is further noted that any such restriction requirement between the species recited in claims 39-45 is subject to the nonallowance of the linking claims (claims 38 and 46-51). Upon the allowance of the linking claims, the restriction requirement as to the linked inventions shall be withdrawn and any

claims depending from or otherwise including all the limitations of the allowable linking claims will be entitled to examination in the instant application. Thus, applicant is entitled to examination of the linking claims (claims 38, 39 and 46-51) to the extent necessary to determine allowability or lack thereof.

In particular regard to the invention as set forth in claim 51 it is noted that claim 51 is dependent upon claim 38 and provides for the further limitation that in addition to the use of transformation for introducing the HRE into the plant or seed, the HRE polypeptide or protein is applied to the plant being treated. As a further process step in the method of claim 38, it appears that the relationship between the invention of claim 38 and that of claim 51 is one of combination/subcombination. MPEP §806.05(c) sets forth the criteria for establishing the distinctness for a combination, subcombination, or element of a combination. In order to establish that combination and subcombination inventions are distinct, two-way distinctness must be demonstrated. To support a requirement for restriction, both two-way distinctness and reasons for insisting on restriction are necessary, i.e., separate classification, status, or field of search. See MPEP § 808.02. The inventions are distinct if it can be shown that a combination as claimed (A) does not require the particulars of the subcombination as claimed for patentability (to show novelty and unobviousness), and (B) the subcombination can be shown to have utility either by itself or in other and different relations. When these factors cannot be shown, such inventions are not distinct. In the instant case, since the particulars of the subcombination (the introduction of the DNA into the plants or seeds) is required for the combination as set forth in claim 51, the two-way distinction test is not met.

For the reasons set forth above, the renewed petition under 37 C.F.R. §1.144 is granted in part. The next Office Action will recast the restriction requirement in accordance with applicable procedures (as discussed above and outlined below), and will, *inter alia*, specifically withdraw, on the record, the restriction requirement from those claims currently listed as being common to more than one group of independent and distinct invention. Further, the examiner will identify and examine any linking claims present or indicate, as appropriate, that none are present.

Should there be any questions with regard to this letter, please contact Brian Stanton, Quality Assurance Specialist, by letter addressed to Director, Technology Center 1600, Washington, DC 20231, or by telephone at (703) 308-1123 or by facsimile transmission at (703) 305-7230.

Jasemine C. Chambers

Jasemine C. Chambers
Director, Technology Center 1600

Modified restriction requirement

Restriction to one of the following groups of inventions would be required under 35 U.S.C. 121:

Group A

I. Claim 40, drawn to a method of enhancing plant growth using a hypersensitive response elicitor derived from *Erwinia chrysanthemi.*

II. Claim 41, drawn to a method of enhancing plant growth using a hypersensitive response elicitor derived from *Erwinia amylovora.*

III. Claim 42, drawn to a method of enhancing plant growth using a hypersensitive response elicitor derived from *Pseudomonas syringae.*

IV. Claim 43, drawn to a method of enhancing plant growth using a hypersensitive response elicitor derived from *Pseudomonas solanacearum.*

V. Claim 44, drawn to a method of enhancing plant growth using a hypersensitive response elicitor derived from *Xanthomonas campestris.*

VI. Claim 45, drawn to a method of enhancing plant growth using a hypersensitive response elicitor derived from *Phythophthora.*

Linking claims

Claims 38 and 46-51 link inventions I through VI. The restriction requirement among the linked inventions is subject to the nonallowance of the linking claims, claims 38 and 46-51. Upon the allowance of the linking claims, the restriction requirement as to the linked inventions shall be withdrawn and any claims depending from or otherwise including all the limitations of the allowable linking claims will be entitled to examination in the instant application. Applicant(s) are advised that if any such claims depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. In re Ziegler, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Claim 39 also links inventions I through VI and the same practice as set forth above in regard to claims 38 and 46-41 will be followed in the examination of this claim. The restriction requirement among the linked inventions would be subject to the nonallowance of the linking claims, claim 39. Note that in the multiple inventions defined in claim 39 utilize different genera of microorganisms (*Erwinia, Pseudomonas, Xanthomonas* and *Phythophthora*) each of defines a subgenus of patentably distinct inventions. Upon election of one of the inventions of

groups I-VI above, claim 39 will be examined to the extent that it encompasses the elected species of the genera set forth in claim 39 as set forth in the inventions of Groups I-VI above. For example, upon election of Group I above, claim 39 will be examined to the extent that it reads on the genus *Erwinia*. Should that scope of claim 39 be found allowable, the examination of claim 39 would be extended to include the other genera set forth in claim 39. See also MPEP §804.01.